REMARKS/ARGUMENTS

Claims 1 and 3-8 are pending in this application. Claims 9-12, 14-19 and 21 have been withdrawn from consideration. Claims 1 and 3-8 were rejected. Claims 1 and 6 have been amended by the present Amendment.

CLAIM REJECTIONS

Claims 1 and 3-5 were rejected under 35 U.S.C. 102 (b) as anticipated by Melgaard et al. (US 2002/0135389).

Claim 1 recites, *inter alia*, "pre-cooling a dry fluid in a heat-exchanger outside the space...conducting at least a portion of the fluid having left the wafer/hybrid holding to the heat exchanger via a second line, heating the portion, by using the portion for the pre-cooling of the fluid in the heat exchanger; wherein the heated portion is conducted from the heat exchanger into the space via a third line, before being allowed to flow out within the space to condition the atmosphere in the space".

According to one embodiment of the present application, a portion of the fluid, before being released in to the environment of the wafer/hybrid holding, is heated in a heat-exchange process that simultaneously achieves pre-cooling of the fluid to be conducted through the wafer/hybrid holding. In this way, energy both for cooling the wafer/hybrid holding and for maintaining the surrounding atmosphere at a higher temperature is saved.

Melgaard et al. discloses a wafer burn-in system includes a first temperature control circuit 18 and a separate second temperature control circuit 20 (See Fig. 1 of Melgaard et al.). "Transfer gas vented from the first temperature control circuit 18

through first pressure relief valve 44 is released into the second temperature control circuit 20"(See paragraph [0034], page 4 of Melgaard et al.). "In order to relieve pressure build up within the second temperature control circuit 20, a second pressure relief valve 68 is also provided and vents heat transfer gas from the chuck environment" (See paragraph [0038], page 4 of Melgaard et al.). Thus, Melgaard et al., uses the pressure relief valves to vent transfer gas within the temperature control circuits. Melgaard et al. does not teach a portion of the transfer gas is conducted to a heat exchanger to be heated and then is fed back into the chuck environment, to condition the atmosphere of the chuck environment. Although it is taught by Melgaard et al. that the transfer gas vented from the first temperature control circuit can be released to the second temperature control circuit, the released transfer gas is not analogous to the claimed "heated portion" of the present application, which is conducted from the heat exchanger into the space. Therefore, Melgaard et al. does not disclose "conducting at least a portion of the fluid having left the wafer/hybrid holding to the heat exchanger via a second line, heating the portion, by using the portion for the pre-cooling of the fluid in the heat exchanger; wherein the heated portion is conducted from the heat exchanger into the space via a third line, before being allowed to flow out within the space to condition the atmosphere in the space", as claimed in Claim 1 of the present application.

Applicant submits that Melgaard et al. does not disclose the limitation of Claim 1. As such, it is believed that Claim 1 is allowable.

Claims 3-5 and 8 depend from Claim 1. The dependent claims are allowable for the same reasons given for the independent claims.

Claims 6-8 were rejected under 35 U.S.C. 102(b) as anticipated by Kim et al. (JP 200 310459).

Claim 6 recites, *inter alia*, "pre-cooling a dry fluid in a heat-exchanger outside the space...at least a portion of the fluid having left the wafer/hybrid holding device is used to condition the atmosphere within the space; a first portion of the fluid having left the wafer/hybrid holding device is firstly conducted to the heat exchanger via a second line, then heated outside the space, and then conducted back into the space via a third line, and a second portion is allowed to flow out within the space directly after it leaves the wafer/hybrid holding device; wherein the first portion is heated by being used for the pre-cooling of the fluid in the heat exchanger, before being allowed to flow out within the space".

According to one embodiment of the present application, the dry, pre-cooled fluid used for temperature regulating the wafer/hybrid holding device is reused in a two-fold way. Firstly, its coolness is utilized in the heat exchanger for the pre-cooling of the supplied fluid in a heat-exchange process. Secondly, its dryness is utilized for conditioning the atmosphere within the space. Thus, the two separate tasks of providing a cool wafer/hybrid holding device and a dry atmosphere surrounding it can be performed with a small amount of energy.

Kim et al. discloses an apparatus for regulating the temperature of a wafer placed in a hermetically sealed vacuum tank 30 filled with plasma G. The method involves circulating cooling water through a closed pipe circuit 22. According to Kim et al., the cooling water can only circulate in the pipe circuit 22. Thus, the cooling water cannot be conducted into the plasma-filled interior of the vacuum tank. Therefore, Kim et al. does

not disclose "a first portion of the fluid having left the wafer/hybrid holding device is firstly conducted to the heat exchanger... and a second portion is allowed to flow out within the space directly after it leaves the wafer/hybrid holding device", as claimed in Claim 6 of the present application.

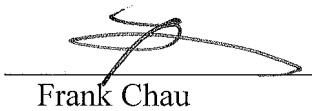
Applicant submits that Kim et al. does not disclose the limitation of Claim 6. As such, it is believed that Claim 6 is allowable.

Claim 7 depends from Claim 6. Claim 7 is allowable for the same reasons given for the independent Claim 6.

For the forgoing reason, it is believed that the above application is in condition for allowance. An early and favorable reconsideration is earnestly solicited.

Entry of this amendment is earnestly solicited, and it is respectfully submitted that this amendment raises no new issues requiring further consideration and/or search.

Respectfully submitted,

By: 

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